ABSTRACT OF THE DISCLOSURE

An apparatus and method for improving the efficiency of a power amplifier operating on the basis of a signal of a large peak-to-average power ratio (PAR). A main amplification part detects envelope values of an input baseband signal, reduces a peak value of the envelope values of the baseband signal to generate a peak reduced signal, amplifies the generated peak reduced signal, and outputs a first amplified signal. An error correction amplification part amplifies an error signal indicating a difference between the baseband signal and the peak reduced signal, and outputs a second amplified signal. A summing part combines the first amplified signal from the main amplification part and the second amplified signal from the error correction amplification part, such that high amplification efficiency is produced and an amplified output signal with reduced spectral regrowth in which an error is corrected can be outputted.